SERVICE MANUAL

T9.435 / T9.480 / T9.530 / T9.565
T9.600 / T9.645 / T9.700
Tier 4B (final)
Tractor

PIN ZFF403001 and above

Part number 47924549
1st edition English
September 2015

MidWestTech | New Holland T9.435, T9.480, T9.530, T9.565, T9.600, T9.645, T9.700 Tier 4B Tractor Service Manual | Publication 47924549

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Item	Metric value	U.S. value
Bevel ring/pinion gear backlash	**0.2 - 0.3 mm**	**.008 - .012 in**
Drive yoke to pinion shaft end clearance	**0.1 - 0.2 mm**	**.005 - .007 in**
Oil type	**NEW HOLLAND AMBRA MULTI G™ HYDRAULIC TRANSMISSION OIL**	

Differential - General specification - 600 Series axles

T9.645 T9.700

Axle specifications

Item	Metric value	U.S. value
Axle dry weight (approximate)	**2170 kg**	**4784 lb**
Ring/pinion gear reduction	2.789:1	2.789:1
Final drive reduction	9.032:1	9.032:1
Overall reduction ratio	25.194:1	25.194:1
Bar diameter	**140 mm**	**5.5 in**
Bar length	**3040 mm**	**120 in**
Bevel pinion bearing preload (rolling)	**6 - 20 N·m**	**50 - 180 lb in**
Differential bearing preload (rolling)	**6 - 14 N·m**	**55 - 120 lb in**
Axle shaft bearing preload (rolling)	**14 - 31 N·m**	**120 - 276 lb in**
Bevel ring/pinion gear backlash	**0.2 - 0.3 mm**	**0.009 - 0.014 in**
Drive yoke to pinion shaft end clearance	**0.08 - 0.13 mm**	**0.003 - 0.005 in**
Oil type	**NEW HOLLAND AMBRA MULTI G™ HYDRAULIC TRANSMISSION OIL**	

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Wiring harnesses - Electrical schematic sheet 69 - Autoguidance

Type	Component	Connector / Link	Description
ECU	**A-086**	C086	AUTOGUIDANCE CONTROLLER (IF EQUIPPED)
Power outlet	**J-614**	C614F	NAVII DIAGNOSTIC CONNECTOR

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5010-PTO solenoid circuit shorted to B+ when PTO is in the off state

T9.

NOTE: *When the cause of the error code has been rectified, clear the error code and test the system for normal operation.*

Cause:

Possible failure modes:

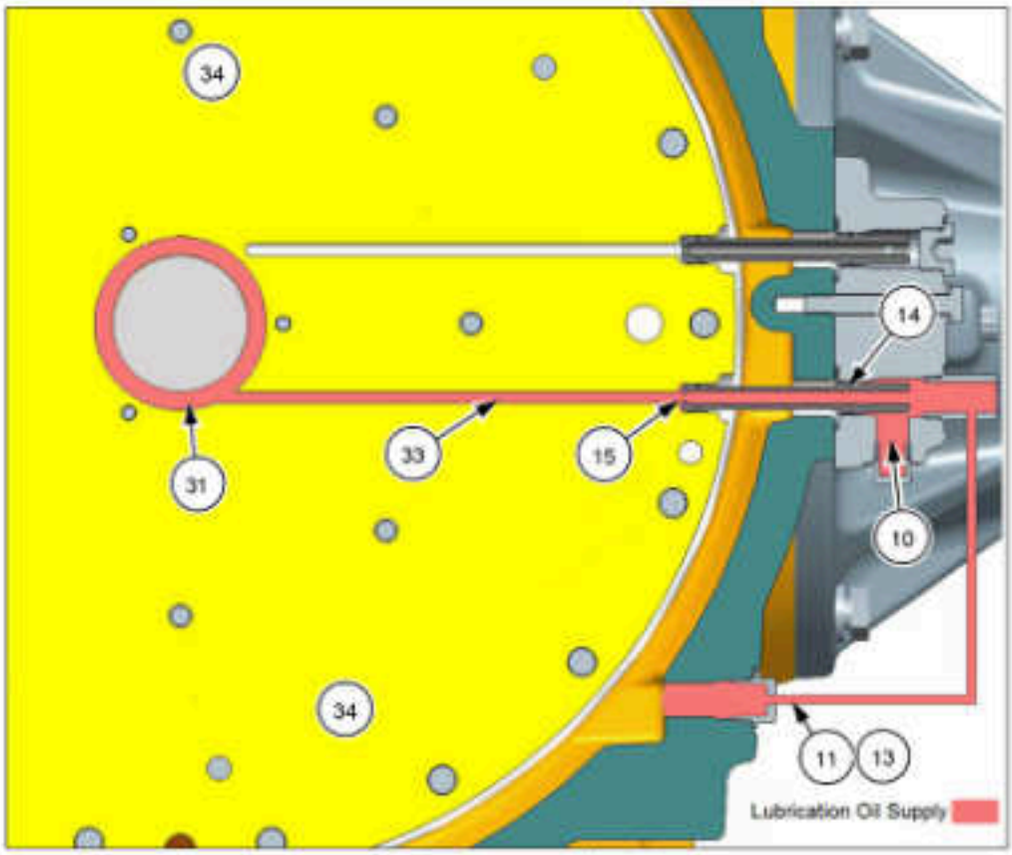
1. External power supply connected
2. Faulty charging system
3. Faulty solenoid
4. Faulty harness
5. Faulty tractor control unit (TCU)

Solution:

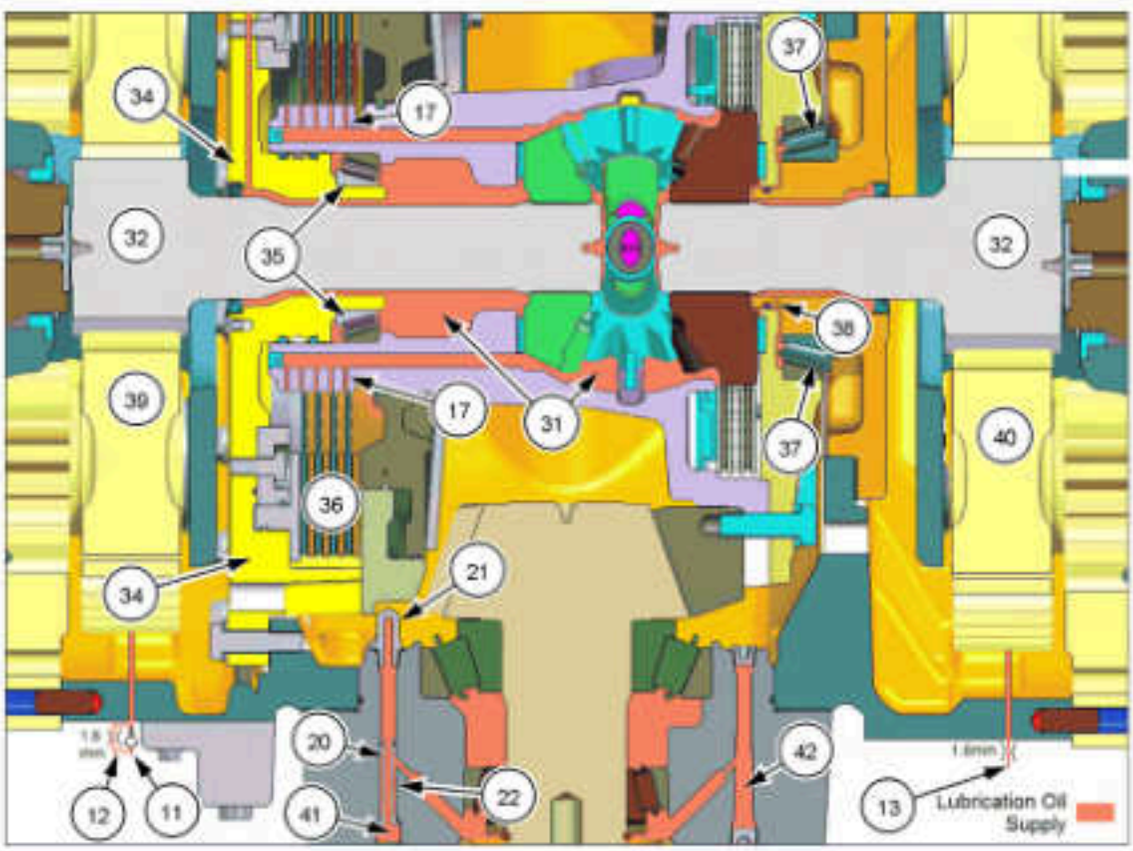
1. Check for other error codes being displayed.
   A. If any other error code is being displayed, go to troubleshooting for these error codes.
   B. If no other error code is displayed, continue to step **2**
2. Check that the tractor battery power supply has not been connected to an external power supply.
   A. If an external power supply is connected to the tractor, disconnect and test the system for normal operation.
   B. If an external power supply is not connected to the tractor, continue to step **3**
3. Check the battery voltage on the instrument cluster.
   A. Start the engine and run at **2000 rev/min**. If the voltage displayed is greater than approximately **15 Volts**, continue to test for a fault in the charging system.
   B. If the battery voltage is okay, continue to step **4**
4. Check PTO clutch solenoid.
   A. Turn the ignition switch OFF. Disconnect PTO clutch solenoid connector C516. Measure the resistance between the solenoid terminal 1 and terminal 2. If the resistance indicated is not between **8 - 11 Ohms**, remove and replace PTO clutch solenoid.
   B. If PTO clutch solenoid is okay, continue to step **5**
5. Check for +12 volts.
   A. Disconnect the tractor control unit (TCU) connectors C060 and C065. Turn the ignition switch ON. Measure the voltage between connector:
   C060 pin 22 and ground and between C065 pin 10 and ground.
   If a short to power is indicated, repair or replace the harness as required.
   B. If the harness is okay, download the correct level of software. If the fault reoccurs, contact ASIST before replacing any components.

Wiring harnesses - Electrical schematic sheet 63 - Power Take-Off (PTO) (if equipped) (55.100.DP-C.20.E.63)

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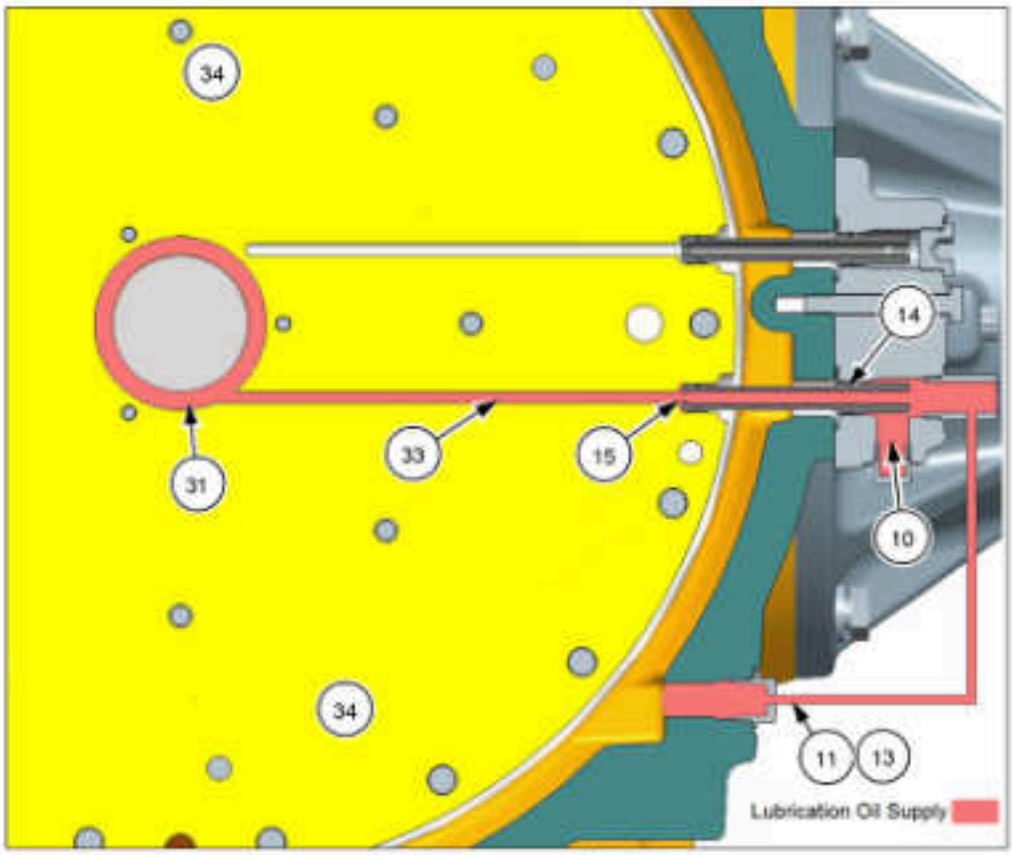


RAIL HTR00567FA 12

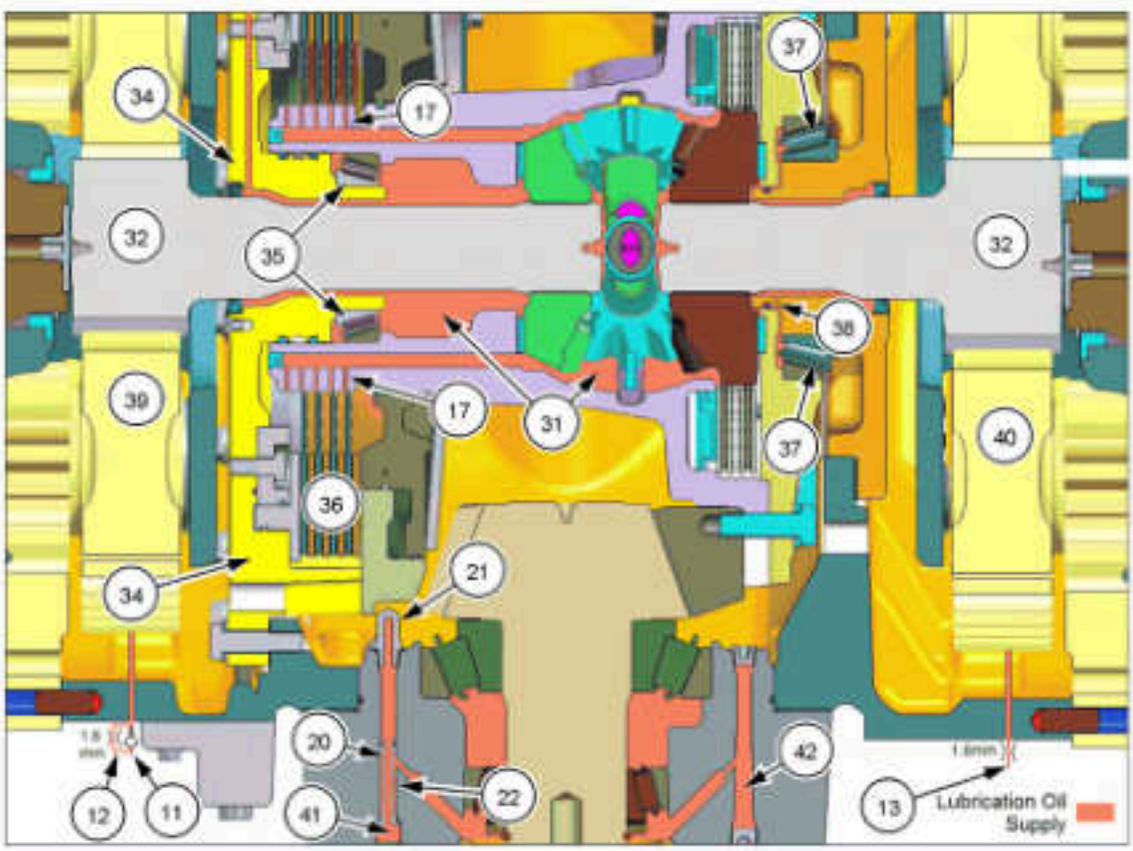


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SH02 - COVER SHEET
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SH05 - POWER DISTRIBUTION - FUSES F-011 TO F-020
SH06 - POWER DISTRIBUTION - FUSES F-021 TO F-026
SH07 - POWER DISTRIBUTION - FUSES F-027 TO F-036
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SH28 - BLANK

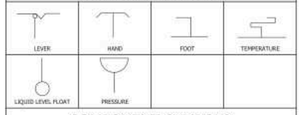
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SH41 - LIGHTING - SWITCH / RELAY / DIODE LOGIC
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SH43 - BLANK
SH44 - BLANK
SH45 - LIGHTING - HOOD
SH46 - LIGHTING - REAR FENDER WORK LAMPS
SH47 - LIGHTING - REAR ROOF WORK LAMPS
SH48 - LIGHTING - 360 ROOF WORK LAMPS
SH49 - LIGHTING - DIPPING SWITCH
SH50 - LIGHTING - FLASHER MODULE
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SH52 - LIGHTING - TAIL LAMPS / TRAILER LAMPS
SH53 - LIGHTING - REAR MARKER LAMPS (IF EQUIPPED)
SH54 - BLANK
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SH56 - LIGHTING - INTERIOR LAMPS

Diagram
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SH67 - ELECTRIC MIRRORS (IF EQUIPPED)
SH68 - ARMREST ELECTRIC ADJUST (IF EQUIPPED)
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SH78 - CAN DATA BUS - VEHICLE BUS 2
SH79 - CAN DATA BUS - IMPLEMENT BUS
SH80 - CAN DATA BUS - ENGINE BUS

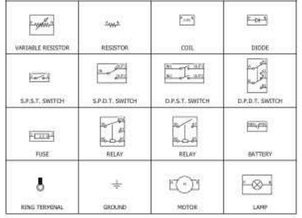
NOTE:
DIAGRAM SHOWN WITH
VEHICLE PARKED & POWER OFF

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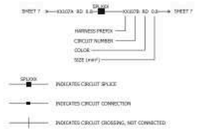
ACTUATOR SYMBOLS



COMPONENT SYMBOLS



CIRCUIT DIAGRAM LEGENDS



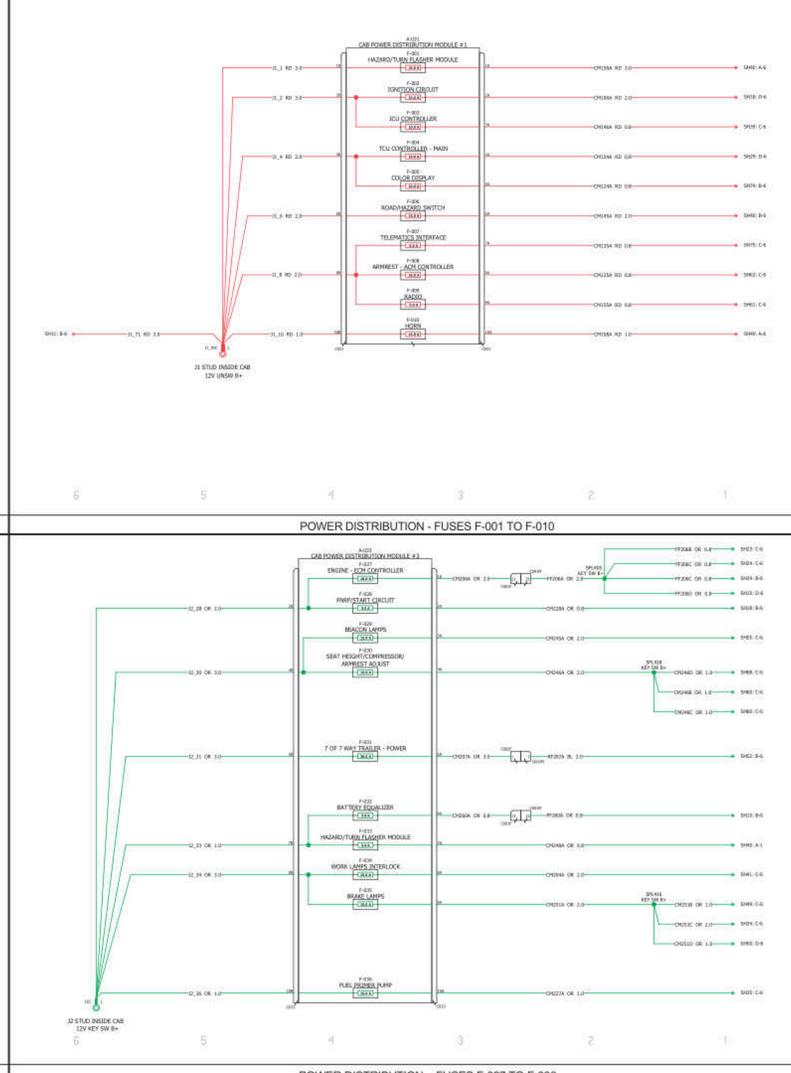
COLOR ABBREVIATIONS

ABBR.	DESCRIPTION
BK	BLACK
BL	BLUE
BR	BROWN
GN	GREEN
GY	GRAY
LB	LIGHT BLUE
LG	LIGHT GREEN
OR	ORANGE
PK	PINK
RD	RED
TN	TAN
VT	VIOLET
WH	WHITE
YE	YELLOW

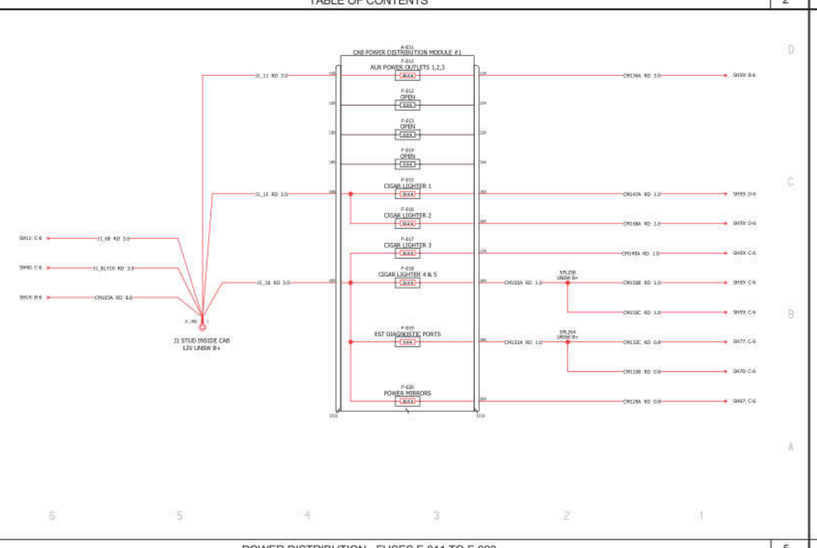
HARNESS PREFIX DEFINITIONS

PREFIX	DESCRIPTION
BA	BACKUP ALARM
BC	BEACON LAMPS
BE	BATTERY EQUALIZER
CM	CAB MAIN
CR	CAB ROOF
DA	DISPLAY ADAPTER
DL	DIFF LOCK, REAR AXLE
DP	FRONT DASH
EA	ARMREST ELECTRIC ADJUST
EN	ENGINE
FF	FRONT FRAME
FM	FRONT MARKER LAMPS
GB	ANTENNA SUB ROOF
GC	AUTOGUIDANCE CAB
GR	ANTENNA CAB ROOF
HC	TPH CAB
HS	TPH CHASSIS
HY	HYDRAULIC SUB ASSEMBLY
IC	ISO 11783 CAB
IP	ISO 11783 POWER
IS	ISO 11783 CHASSIS
LD	PERFORMANCE (LED) LIGHT OPTIONS
LH	HOOD LAMPS
LT	NH TAIL LAMP ADAPTER
PG	POWER AND GROUND CABLES
PT	PTO
RF	REAR FRAME
RM	REAR MARKER LAMPS
RT	7 WAY TRAILER ADAPTER
SB	SCR BUNDLE
SC	SCR CHASSIS
SD	SCR DEF QUALITY SENSOR
SE	SCR EXHAUST
SP	DIFF LOCK, STEERING PRESSURE SENSOR
TA	TRANSMISSION ADAPTER
TM	TRANSMISSION
VS	ELECTRONIC HYDRAULIC REMOTE VALVES
WB	WASHER BOTTLE
WF	FRONT LOWER WIPERS

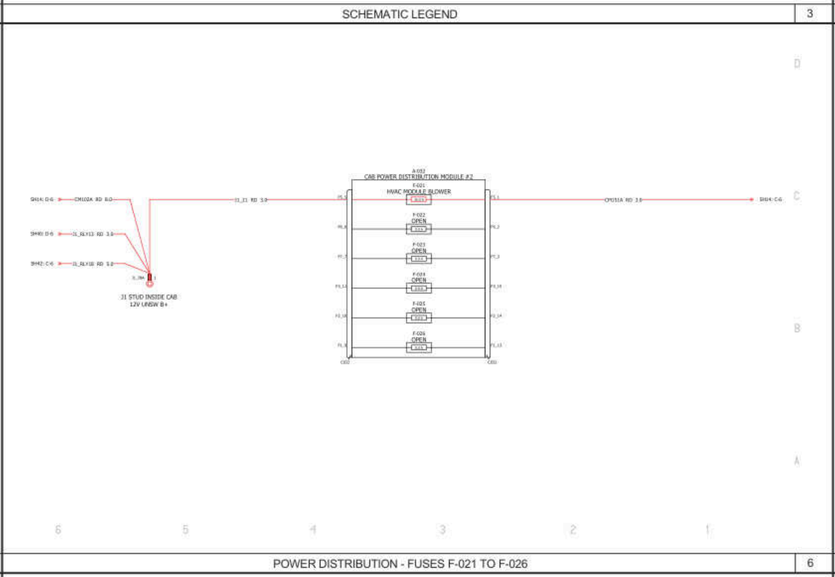
SCHEMATIC LEGEND 3



POWER DISTRIBUTION - FUSES F-001 TO F-010 4

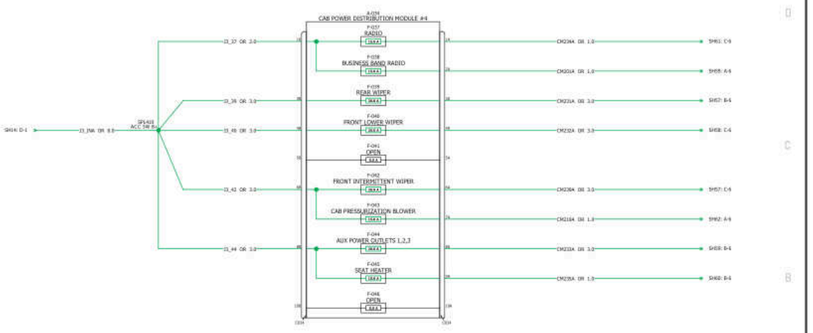


POWER DISTRIBUTION - FUSES F-011 TO F-020 5

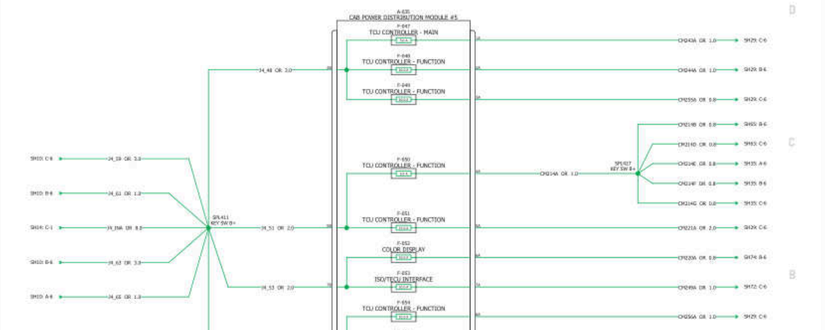


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POWER DISTRIBUTION - FUSES F-046 TO F-056 9

T9.435, T9.480, T9.530, T9.565
T9.600, T9.645, AND T9.700
TRACTOR SERIES
P.I.N. ZFF403001 AND AFTER
ELECTRICAL SCHEMATIC
RAC 47901803

LEGEND

INDICATES CONSTANT POWER
INDICATES POWER WHEN KEY SWITCH IS ON
INDICATES POWER WHEN KEY SWITCH IS IN START POSITION
INDICATES 24 VOLT CIRCUIT

RAC47901803S1S1

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